The Impact of Board Structure on the Bank's Performance: Case of the Banking Industry of Jordan 2005-2013

Prepared by:

Lina Mahmoud Hamdan

Supervised by:

Prof. Mona Al Mwalla

Program: Master in Banking and Finance

2015

Impact of Board Structure on Bank's Performance: Case of the Banking Industry of Jordan 2005-2013

أثر تركيب مجلس الإدارة على أداء البنوك: حالة بنوك الأردن 2005-2013

By:

Lina Mahmoud Hamdan

Bachelor in Banking and Finance,

Yarmouk University, 2007

Supervised by:

Prof. Mona Al Mwalla

"Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master in Banking and Finance at Yarmouk University".

Thesis Committee:

Prof. Mona Al Mwalla…………………………….…..Chairman

Professor of Finance- Yarmouk University

Prof. Mohamad Ajlouni…………………………….…..…Member

Professor of Finance-Yarmouk University

Dr. Joma'a Abbad…………………………………..….Member

Associate Professor of Finance-Al albayt University

6/1/2015

Dedication

I dedicate my thesis to my parents, family and friends.

Acknowledgement

First I thank Allah for giving me the ability to fulfill my ambition.

I would like to address my appreciation to my beloved parents for their endless love,

My family and friends I couldn't have reached this far without you.

Dearest Dr. Mona I couldn't have finished this work without your guidance along the way, during the past period you have enlightened me in many ways……Thank you.

Appreciation is given for the committee members Dr. Moh'd & Dr. Joma'a for their precious time spent on reading my thesis and making notes to guide me as well.

Table of Contents

Chapter Four: Methodology

Chapter Five: Data Analysis and Results

Chapter Six: Conclusions and Recommendations

List of Tables:

List of Abbreviations

Abbreviation	Description
ASE	Amman Stock Exchange
BIS	Bank of International Settlements
BOD	Board of Directors
CBJ	Central Bank of Jordan
CEO	Chief Executive Officer
CG	Corporate Governance
DEA	Data Envelopment Analysis
DPR	Dividend Payout Ratio
EPS	Earning Per Share
GCC	Gulf Cooperation Council
GMM	Generalized Method of Moment
IC	Intellectual Capital
JSC	Jordan Stock Commission
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Square
MVBV	Market Value to Book Value
NI	Net Income
P/E	Price to Earnings Ratio
ROA	Return on Assets
ROE	Return on Equity
SOX	Sarbanes of Oxley Act
TA	Total Assets
TE	Total Equity
UAE	United Arab Emirates
UK	United Kingdom
VAIC	Value Added Intellectual Coefficient

Hamdan Lina, "Impact of Board Structure on Bank's Performance: Case of the Banking Industry of Jordan 2005-2013."Master Thesis, Yarmouk University, Faculty of Economics and Administrative Sciences, Department of Banking and Finance, 2015.

Supervised by:
Prof. Mona Al Mwalla

Abstract

This study aims to investigate the impact of board of directors' (BOD) structure on Jordanian's bank profitability listed in Amman Stock Exchange during the period 2005-2013. BOD represents an upper hand to implement and monitor corporate governance (CG) in banks, and this research importance is derived from the importance of CG itself. Panel data analysis is used to examine the relationship between the dependant variables Return on Assets (ROA) and Return on Equity (ROE) as measurements of profitability, and the set of independent variables which include two proxies of CG (BOD size and Chief Executive Officer (CEO) duality) and board members' ownership mix, nationality, gender diversity, stock beta and family relations. Empirical results show that there is no significant relationship between BOD nationality, BOD size, family members and bank performance. However, the results show that significant relationships exist between CEO duality, gender diversity, board ownership, beta and bank performance.

Keywords: Corporate Governance, Board of Directors, CEO Duality, Gender Diversity, Bank, Jordan.

Chapter One

Introduction

Chapter One

Introduction

This chapter includes the following sections:

1-1 Preface.
1-2 Problem Statement.
1-3 Importance of the Study.
1-4 Limitation of the Study.
1-5 Research Objectives.
1-6 Research Questions.
1-7 Research Hypotheses.
1-8 Research Methodology.
1-9 Structure of the Study.

Chapter One

Introduction

1-1 Preface:

Organization for Economic Cooperation and Development (OECD) defined corporate governance (CG) as “Procedures and processes according to which an organization is directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the organization – such as the board, managers, and shareholders– and lays down the rules and procedures for decision-making.” Board of directors (BOD) has caught the attention of many regulators and researchers since CG implementation responsibility rests in their hands. BODs have important characteristics to investigate especially when trying to understand boards in what determines their makeup and actions as illustrated by (Adams *et al*, 2008). Independency of BOD members is a controversial part of CG and must be monitored by regulators.

Looking at BOD structure in Jordanian banks during the research period, it can be seen that Jordanian boards are varied in terms of: types of members (individuals or institutional representatives), family relationships, female presence in BODs and nationality of members. This diversity in the

compositions of boards and its effect on bank performance are examined in this research.

1-2 Problem Statement:

Corporate governance issues are very important and act as a mechanism to control managerial activities and act to guarantee shareholders wealth and maintain value maximization objectives. BOD not only represents one aspect of CG but they are also an upper hand to guard shareholders interest. Boards' structure should be studied in depth in order to understand their effect on performance and give recommendations about their structure.

1-3 Importance of the Study:

The importance of the study is derived from the importance of CG goals, and how critical it is to fulfill efficiency and transparency in the banking industry. Financial crisis can be avoided through implementation of good CG and since BODs are responsible for this implementation, their structure should be investigated.

This research is analyzing the structure of boards in depth by including new variables to understand the structure of BOD in Jordanian banks; such as gender diversity and ownership structure for board members. Many scholars focused on studying ownership structure as an indicator of CG but in this study BOD ownership is under investigation, which is divided into

four types in the Jordanian banks: Foreign, Jordanian, institutional and individuals' ownership.

1-4 Limitation of the Study:

This research covers only the Jordanian commercial banks listed in Amman Stock Exchange (ASE) and excludes the Islamic and non-Jordanian banks for the period (2005-2013).

1-5 Research Objectives:

This research aims to investigate the impact of BOD structure on the performance of banks listed in ASE during the study period. The following main objectives are set to answer the research questions:

- Examine the effect of BOD structure on the return on assets of banks listed in ASE.
- Examine the effect of BOD structure on the return on equity of banks listed in ASE.

1-6 Research Questions:

The following questions are developed to investigate the impact of BOD structure on bank performance:

- Is there a significant impact of BOD member's nationality on bank performance?
- Is there a significant impact of board size on bank performance?

- Is there a significant impact of CEO duality on bank performance?
- Is there a relation between gender diversity and bank performance?
- Is there a significant impact of family board members and bank performance?
- Is there a significant impact of board members' ownership on bank performance?
- Is there a significant impact of stocks beta on bank performance.

To answer the research questions and to achieve the study objectives, the following hypotheses are formulated.

1-7 Research Hypotheses:

Research hypotheses are developed to answer the research questions. The main hypotheses of the research are:

› H01: There is no statistically significant impact of board nationality on bank performance

› H02: There is no statistically significant impact of board size on bank performance.

› H03: There is no statistically significant impact of CEO duality on bank performance.

›H04: There is no statistically significant impact of board gender diversity on bank performance.

›H05: There is no statistically significant relationship between family board members and bank performance.

›H06: There is no statistically significant relationship between board ownership and bank performance.

›H07: There is no statistically significant relationship between stocks beta and bank performance.

Sub hypothesis are explained in the analysis chapter.

1-8 Research Methodology:

To investigate the relationship between bank performance and BOD structure a sample of 13 banks are selected for the period 2005-2013.

The dependant variable is bank performance and the independent variables are: BOD size and CEO duality which are included as proxies of CG, other BOD variables are: gender diversity, family members, nationality of members (Jordanian or Foreign), stocks beta and members' ownership structure (Foreign, Jordanian, Individuals or Institutional). Bank size is used in the study as a control variable. Bank performance is measured using two financial ratios (ROA and ROE).

1-9 Structure of the Study:

The structure of the study is organized through six chapters, including the introduction of the research in the first chapter and the theoretical background and related previous studies are in chapters two and three respectively. While the research methodology and data analyses are in chapters four and five. Conclusion and recommendations are outlined in the last chapter.

Chapter Two

Theoretical Background

Chapter Two

Theoretical Background

This chapter includes the following sections:

2-1 Introduction.

2-2 Corporate Governance Definition.

2-3 Basel Committee and Corporate Governance.

2-4 Agency Problem and Good Corporate Governance.

2-5 Board of Directors' Structure.

2-6 Bank Performance Definition and Measurements.

2-7 Relationship between Corporate Governance and Performance.

2-8 Corporate Governance in Jordan

Chapter Two

Theoretical Background

2-1 Introduction:

This chapter discusses the definition of corporate governance (CG), its development and relationship with agency problem, and characteristics of good CG. The structure of board of directors (BOD) and responsibilities under the umbrella of CG are also discussed. Bank performance is defined and the relationship between CG and bank performance is explained. A summary of CG Acts in Jordan is presented in the last section of this chapter.

2-2 Corporate Governance Definition:

The word governance is defined by the World Bank (1992) as: "the manner in which power is exercised in the management of a country's economic and social resources for development" (P.52). Governance is an important set of rules to apply, not only in corporations, but also in many financial and non financial institutions, such as universities and charities. Basel committee sees CG as a way of doing business that requires continual monitoring, reinforcement and reevaluation.

CG is defined by the Organization for Economic Cooperation and Development (OECD) as: "Procedures and processes according to which an organization is directed and controlled. The corporate governance

structure specifies the distribution of rights and responsibilities among the different participants in the organization – such as the board, managers, shareholders and other stakeholders – and lays down the rules and procedures for decision-making." (OECD, web pages). Shleifer and Vishney (1997) stated that: "Corporate Governance deals with the ways in which suppliers of finance to corporations assure themselves of setting a return on their investment."(P. 737).

CG has received the attention of many scholars and agencies. For example, Blair (1995) defined it as a set of legal, cultural, and institutional rules that sets the mission of corporations, control mechanism, and risk and return allocation from corporation activities. However, Cadbury (2000) see it as a mean for achieving economic and social goals equally, and aligns the interests of different stakeholders and society. Goergen (2012) concluded that CG can be seen as the prevention of conflicts between investors, managers, and stakeholders. Baker and Anderson (2010) explained that CG is concerned also with the relationships among internal and external stakeholders.

CG has four pillars: (1) Accountability to ensure that the boards is accountable to shareholders and managers are accountable to their board, (2) Fairness to protect shareholders rights, (3) Transparency to ensure

accurate disclosures of material information in a timely manner, and (4) Independency to avoid any conflict of interests.

To conclude, it can be seen from these definitions that CG refers to how a corporation is governed and who has the authority to make decisions and state the guidelines of the corporation. CG is achieved internally through BOD in the corporation and the related committees; which are responsible for making good decisions on behalf of the corporation. Details of BOD role in CG will be discussed later on.

2-3 Basel Committee and Corporate Governance:

Basel committee (a committee of Bank for International Settlement (BIS)) published an initial guidance for CG in banks in 1999 which were reissued for public comment in 2005. BIS (1999) set the board of directors' guidelines of generally-accepted global "best practices" of CG; those guidelines for BOD practices can be summarized into:

1. Establishing objectives and corporate values for the organization.
2. Setting responsibility and accountability guidelines.
3. Ensuring that board members are qualified for their positions.
4. Ensuring that senior management members are doing their jobs appropriately.

5. Ensuring that compensations are consistent with ethical values, objectives, and strategy of the bank.

The Organization for Economic Cooperation and Development (OECD) in 2004 set CG principles, which led the BIS to release updated version of “Enhancing Corporate Governance for Banking Organization” in 2006, it included the following eight principles:

- Principle 1: Board members should be qualified for their positions, have a clear understanding of their role in corporate governance and be able to exercise sound judgment about the affairs of the bank. (p6).
- Principle 2: The board of directors should approve and oversee the bank’s strategic objectives and corporate values that are communicated throughout the banking organization. (p9).
- Principle 3: The board of directors should set and enforce clear lines of responsibility and accountability throughout the organization. (p11).
- Principle 4: The board should ensure that there is appropriate oversight by senior management consistent with board policy. (p12).
- Principle 5: The board and senior management should effectively utilize the work conducted by the internal audit function, external auditors, and internal control functions. (13).

- Principle 6: The board should ensure that compensation policies and practices are consistent with the bank's corporate culture, long-term objectives and strategy, and control environment. (p14)
- Principle 7: The bank should be governed in a transparent manner.(p15).
- Principle 8: The board and senior management should understand the bank's operational structure, including where the bank operates in jurisdictions, or through structures, that impede transparency (i.e. "know-your-structure"). (p17).

The latest version of BIS guidelines for CG was issued in October 2014, the first three principles emphasize on BOD's overall responsibilities, qualifications, individual requirements, and BOD's own structure and practices. Principle 4 state that senior management should carry out bank's activities on daily basis and they are accountable to the BOD. Principle 5 is for governance of group structure for parent companies. While principles 6 7, and 8 emphasize on risk management, monitoring, controlling and communication within the bank. Where risk management should be under the direction of an independent chief risk officer, and risk controlling must be on an ongoing basis. A new principle is introduced which is compliance under principle 9 bank's senior management and BOD are accountable for bank's compliance. Principle 10 states that internal audit should be accountable to the BOD on all matters. Compensation structure under

principle 11 should be reviewed and monitored by the BOD. Moreover, governance should be transparent to its shareholders, depositors, and stakeholders which is explained in principle 12. And finally principle 13 which is also a new principle for the role of supervisors, they should hold BOD accountable for their responsibilities towards CG.

It is important to keep in mind that CG is dynamic in its nature and not static; thus regulators and policy makers must continue testing and developing CG as changes occur in the market. In this research the structure of BOD in Jordanian banks is going to be explained in depth as it is the upper hand of CG as was mentioned earlier.

2-4 Agency Problem and Good Corporate Governance:

The agency problem was the triggering event to establish CG to solve conflicts of interests and control management, Jensen and Meckling (1976) defined agency problem as a "conflict of interest between a company's management and the company's stockholders". Conflict of interest exist when the manager acts for his own best interest (maximize his wealth) not the organization interest. There are two primary types of agency problem: conflict between managers and stockholders, and conflicts between managers and creditors. Therefore, management must use the shareholders money efficiently and achieve returns to satisfy shareholders with reasonable risk exposures. Jensen (1986) affirmed that agency problem

starts when managers waste the free cash flow by investing it in a below cost of capital. Jensen (1986) defined free cash flow as: "free cash flow is cash flow in excess of that required to fund all of a firm's projects that have positive net present values when discounted at the relevant cost of capital. Such free cash flow must be paid out to shareholders if the firm is to be efficient and to maximize value for shareholders." (P.112).

There are two theories of free cash flow; the first theory indicates that firms turn into internal funding rather than external funding for investment opportunities which leads to financial constraints and lower possible profits for shareholders; caused by information asymmetries between borrowers and lenders. The second theory indicates that the principal-agent problem causes the markets to be imperfect, which leads managers to finance unprofitable projects with excess cash rather than pay out dividends to shareholder. One of the early mechanisms of CG was executives pay in order to solve agency problem and enhance firms' performance. However the use of executives pay or compensation as a solution was criticized by many scholars and described as an illusion as illustrated by Thomas and Hill (2012).

As financial crisis and bankruptcy increased, CG is mostly needed**.** In the UK, governance started in the early 1990s with 'Cadbury Code' for listed companies. Few years later, it evolved into a code for corporate governance. OECD Principles of Corporate Governance in 1999 stated that:

"Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and shareholders and should facilitate effective monitoring, thereby encouraging firms to use resources more efficiently."

Banks must have strong corporate governance because ensuring the stability and safeness of banks will strengthen the banking industry as a whole, which will be positively reflected in the economy as the BIS indicated in 1999. Good CG helps banks to manage the risks they are encountered effectively with an efficient risk-return tradeoff. BIS (2006) indicated that Good CG can be promoted by: shareholders, customers, employees, auditors, credit rating agencies, and regulators and stock exchanges.

There are internal and external tools of CG. Internal tools in a corporation are the board, senior management, internal controls and committees, while external tools lie in the hand of regulators. Internal CG factors relates to the effectiveness of the interaction among a bank's management, board shareholders and stakeholders.

Therefore it can be seen that implementation of CG in banks will minimize the agency cost, and will enhance economic and social benefits gained from business.

2-5 Board of Directors' Structure:

As mentioned earlier in this research, maintaining good CG is the role of BOD and they are responsible for control of management; management is responsible for day-to-day operations of the organization. Fama and Jensen (1983) focused on having an effective separation of top level managers and control in corporations. They believe that outside directors being treated as experts in decision control; will act for the corporation best interest to protect their reputations. This is due to the fact that outside directors are valued based on their performance as internal decision makers in other boards.

In order for board members to fulfill their responsibilities, they should have access to accurate, relevant and timely information. OECD (2004).

Boards of directors have difficult characteristics to study; especially when trying to understand boards in what determines their makeup and actions as explained by Adams and Mehran (2008). Independency of BOD members is a controversial part of CG. Basel committee defined independence as the ability to make objective decisions independent of management, politics, and inappropriate outside interests. Stricter definitions of independency are being applied in CG policies because of their importance to best benefit of the firms. Furthermore, Sarbanes-Oxley act (SOX) indicated that the number of independent members in the board must be increased.

Chen *et al*. (2008) recommended that BOD should pay more attention to the following points in order to have a more effective board:

- BOD time should be spent effectively on strategies and risk management.
- Improving skills and continuing education of members of the BOD.
- Renewal of BOD members.

Looking at BOD structure in Jordanian banks during the research period, it can be seen that Jordanian boards are varied in terms of: CEO duality, types of members (individuals or institutional representatives), personal relationships, female presence in board rooms, and nationality of members. This diversity in the compositions of boards and its effect on performance are examined through this research.

2-6 Bank Performance Definition and Measurements:

Performance can be described as how well a person, a machine, or organization does a needed work or an activity. And bank performance can be thought of as the mechanism used to evaluate how well a bank is doing, by looking at its income statement and review the sources of income and expenses that affect the bank's profitability. Financial ratios are the relationship between accounting data within the firm that are used for comparison purposes. However, dividing an accounting balance over the other is not enough. Financial ratios need to be benchmarked against

historical ratios, economical indicator, or an industrial index in order to make meaningful comparisons or predictions. In this research size effect must be controlled, and this was achieved by using financial ratios to measure banks performance in Jordan.

Bank performance can be measured through financial ratios, such as:

1. Return on assets (ROA): the ratio of net income to total assets. Besley and Brigham (2000) pointed out that ROA gives an idea of the return on investment earned by the firm. Dividing net income over total assets makes a useful measure to see how well a manager of a bank is able to generate profits from total assets compared to other bank managers in the industry. (P. 104).

2. Return on equity (ROE): the ratio of net income to common equity, this measure the rate of return on common stockholders' investment as defined by Besley and Brigham (2000). This ratio measures how much a bank is earning on their equity investments. (P.105).

3. Profit margin: dividing net income by sales gives the profit per dollar of sales as explained by Besley and Brigham (2000) (P.104).

4. Earnings per share (EPS): dividing net income by average shares outstanding gives an important indicator of profitability of a firm.

ROA and ROE ratios are used in this research to measure bank performance, other dependant and independent variables used are discussed in details in methodology chapter.

2-7 The Relationship Between CG and Performance:

The nature of the relationship between CG and firm performance are different among researchers; this is caused by CG elements and models used to measure it; CG can be measured through BOD Independency, CEO duality, ownership, and BOD size.

It cannot be generalized whether there is a positive or a negative relationship between CG and firm performance as concluded by Clough and Edwards (2005) that good governance will enhance bank performance. Ajlouni (2007) found that there is no evidence on the effect of ownership structure on performance of all listed Jordanian companies. Credit union governance is not positively related to performance which Chen *et al.* (2008) concluded. However, it can be said that CG once applied efficiently within firm and shareholders goals; it will lead to better performance and a stronger economy. Al-Rosan (2009) indicated that effective corporate governance regime will lead to more efficient banking industry which will affect the economy positively.

2-8 Historical Development of CG in Jordan:

The central bank of Jordan (CBJ) followed international guidelines from OECD and Basel committee and issued CG guidelines for Jordanian banks in 2007. After the financial crisis, CG has witnessed important developments created by OECD, Basel committee, and FSB to enhance the power of CG, CBJ reflected those developments by issuing 2014 CG guidelines; in order to maintain good CG implementations. The (CBJ) guidelines for CG stated that the Chairman of the board and the general manager (or CEO) roles should be separated in order to preserve clear responsibility and accountability missions. The chairperson should be a non-executive member, and not involved in day-to-day bank operations. While, board members shouldn't be less than 11 members, at least four of them have to be independent members. Moreover, BOD should form committees from board members to maintain CG application; each bank should at least form: corporate governance committee, audit committee, risk management committee, and nomination and compensations committee. The BOD may also form temporary committees to carry out specific tasks whenever they are needed. Meetings of the BOD must not be less than six times in a fiscal year.

Regarding the independency of members, Jordan Securities Commission (JSC) defined an independent member in CG Code of 2004 as: "A member

of the board of directors who is not tied to the company or any of its upper executive management, affiliate companies, or its external auditors by any financial interests or relationships other than his shareholding in the company". (P.5).

Jordanian Banking Law No.28 of 2000 Article No. 21, states that the board of directors must maintain the following duties and responsibilities:

1. Defining objectives and drawing plans to be carried out by the executive management of the bank.
2. Selecting appropriate executive managers whom are capable of managing the activities of the bank effectively.
3. Granting approval for investment policy and credit policy of the bank.
4. Monitoring and implementation of the bank policies.
5. Ensuring that board and senior management members are acting to the best benefits of the bank and not their own personal ones.
6. Adopting measures to ensure sound internal control and audit.

CG in Jordanian banks is controlled internally with the rules and policies assigned by management and BOD, and externally through investment environment and competition situation in Jordan, and ASE and CBJ regulations. Jordanian corporations are regulated by Companies Act of

1997 and Securities Act of 2002 and those authorities have the right to issue financial fines, and de-listing and suspending fines as explained by Daradkah and Ajlouni (2013). Since weak governance was a lead factor in financial crisis globally; Jordan must maintain and improve good CG in firms in order to benefit shareholders, corporations, and the economy.

This chapter defined corporate governance, and agency problem. The principles of Basel Committee for CG are outlined. The relationship between CG and bank performance, the BOD structure, and CG in Jordan are also discussed. The diversity in BOD's structure of Jordanian banks and ownership mix of board members need to be discussed in depth since BOD is responsible in maintaining and monitoring CG. Their relationship with bank performance must be investigated to understand how CG is implemented and thus enhance performance. The following chapter discusses the relevant studies.

Chapter Three

Literature Review

Chapter Three

Literature Review

This chapter includes the following sections:

3-1 Introduction.

3-2 Developed Markets Studies.

3-3 Emerging Markets Studies.

Chapter Three
Literature Review

3-1 Introduction:

This chapter reviews some of the previous studies that have investigated the relationships between board of directors' (BOD) structure, ownership proportions, CEO dualities, gender diversities, and bank performance. The first section of this chapter emphasize on research that have been conducted in developed markets, while the second section emphasize on those conducted in emerging markets.

3-2 Developed Markets Studies:

Dalton *et al.* (1998) provided meta-analysis that included results of 85 empirical studies of both BODs' composition and board leadership structure and their relationships to firms' performance in large US firms. Regarding board composition, they studied four primary variables to describe its composition: inside director proportion, outside director proportion, affiliated director proportion, and independency proportion. Also, they included size of the firm, and performance accounting and market-based indicators. Meta analysis results show no evidence of a substantive relationship between board leadership structure and financial

performance, and no relationship between BOD composition and financial performance.

Adam and Mehran (2008) studied board governance and performance in 32 public traded US banks over the period (1959-1999). Firms' performance was measured by ROA and Tobins' Q, while governance variables were: BOD size and ratio of outside directors to BOD size, during the period 1986-1999 when firms had bigger BOD size because of mergers and acquisitions activities, this lead to a positive relationship between Tobins' Q and BOD size. While periods of less merger and acquisitions activities, indicated that there is no relation between firm performance and board composition.

Chen *et al*. (2008) investigated the relationship between CEO duality and firm performance using a sample of 5,154 U.S. firms during the period (1999- 2003). The sample included duality and non duality firms. Proxies of corporate governance in their study included CEO ownership, institutional ownership, board size, CEO age, chairman age, and percentage of independent directors. To capture agency costs in their model, they included operating expense ratio and asset utilization. Control variables include firm size, firm age, Research & Development expenses, and sales growth. While, firm performance was measured by Tobin's Q and Market Value to Book Value ratio. Fixed effect model analysis resulted in significant differences in firm's characteristics between dual and non-dual

firms. However, there was no evidence that proves CEO duality has a significant effect on firm performance.

Sakawa and Watanabel (2011) investigated the relationship between BOD size and composition and firm performance for Japanese banks during (2006-2009). Dependant variable includes bank performance measured by Tobin's Q and the independent variables are board size and composition. They classified Japanese banks in their study into city and regional banks.

Using Ordinary Least Squares (OLS) regression for testing the relation between Tobin's Q and board size and composition, and Generalized Method of Moments (GMM) estimation showed that BOD size in banks with foreign branches had a negative significant correlation with Tobin's Q, and there was no significant relation between firm performance and outside directors. They also found that banks with larger board of directors underperform others regarding Tobin's Q, and concluded that board structures of Japanese banks are well performed only in banks with taxpayer money.

Hassan and Berinyuy (2011) studied the relationship between board composition in terms of gender diversity and bank performance for big four banks listed in Stockholm Exchange during (2001-2010). Bank performance was measured through Return on Equity ratio (ROE), and

linear regression model was built to study the relation between gender and ROE. They concluded that the female proportion in BOD do not have a significant effect on banks' performance of Sweden Banks.

Yang and Zhao (2012) studied the effect of board leadership using CEO duality variable on firms' performance of 1,927 U.S. duality and non duality firms during 1979-1998. Firms' performance was measured by Tobin's Q. Control variables of the study include firm size, capital structure, cash and volatility. The period of the study was around year 1989 when USA and Canada signed the Free Trade Agreement in order to test duality effect on firms when competition is high in the market according to their perspective. Results of their panel data regression was a positive effect of CEO Duality on the profitability of U.S. firms' performance.

McNulty *et al.* (2012) studied board of directors' structure as proxies to corporate governance and its relationship with risk in the UK during (2007-2009). They used a set of methods to test the relationship between CG and risk; by developing a questionnaire that was sent to the chairmen of the boards of largest 1,000 UK companies in stock value. Then a sub sample of 40 companies was selected to conduct interviews with the financial director in order to understand the conditions and arrangements that boards exercised to control risk of their company.

In their study, risk variables included corporate liquidity, new investments in property and plant, and cash acquisitions. Board effectiveness included board structure and directors characteristics. Multiple regressions showed that financial risk is lower in smaller boards, but lower where boards had more executive directors than boards with less number of executive directors. Also they found that non-executive directors have high efforts norm in doing their board related tasks. Board structure, board size, remuneration, effort norms, and cognitive conflicts between board directors were all significant to the level of financial risk in companies.

Pathan and Faff (2013) investigated the relationship between board structure in terms of: (board size, independent directors, gender diversity) and bank performance for large 300 US banks during (1997 -2011). The period of the study was divided into two time intervals: Before Sarbanes Oxley Act which started from 1997 till 2002, and they found that gender diversity improved bank performance. The second time interval was from 2003 till 2011 after Sarbanes Oxley Act. They found a little positive impact of gender diversity on bank performance. They concluded that female board presence in small size banks, can adversely affect its performance.

3-3 Emerging Market Studies:

Al-Shiab and Abu-Tapanjeh (2005) examined the effect of ownership structure on Jordanian industrial companies' performance of largest 50 industrial firms listed on ASE during (1996-2002). Two firm performance measures were used; return on assets (ROA) and market to book value (MVBV). They used multiple regression techniques to study the relation between firm performance being the dependent variable and the independent variables which are: ownership concentration, ownership identity, capital structure, natural logarithm of firm size, and sales growth.

They concluded that ownership concentration has a positive insignificant effect on ROA, and ownership identity characteristics have no significant effect on ROA. While testing for performance by using market to book value, ownership concentration has a positive and significant relation. And ownership identity has a negative and significant affect on Jordanian Industrial firms' market to book value ratio.

Isik *et al.* (2005) examined the impact of stock performance and foreign ownership on Jordanian banks efficiency during (1996-2001). They used a non parametric methodology in their analysis: Data Envelopment Analysis (DEA) to test efficiencies of Jordanian banks, and investigated managerial, technical and scale efficiencies of banks, and bank production. They also investigated the characteristics of efficient banks and resulted that public

and foreign ownership is negatively associated with efficiency, and found that managerial efficiency declines as banks' ownership concentration increases. According to their study, banks seem to be more efficient when they are larger in size. However, they found that banks were not operating at an optimal scale in the period of their study.

Ajlouni (2007) studied the effect of ownership structure on performance of all firms listed in ASE covering all sectors during the period 1992-1994. Ownership structure was divided into four ownership categories: individuals, companies, Jordanian government, and non Jordanian. Ownership structure was measured by using concentration ratio of top ten owners, and Herfindahl index. While, firm performance was measured through ROA, ROA, and MVBV. Results of his research showed a weak and insignificant correlation between ownership concentration ratios and bank performance, and included that government ownership has no effect on performance.

Kharabsheh (2007) studied the relationship between proxies for corporate governance and financial performance of 12 commercial Jordanian banks during 2000-2005. The researcher used a questionnaire to collect primary data from management of banks to investigate their compliance to corporate governance. In her study, she followed the principles of corporate

governance for financial institutions that were set by OECD and Basel committee.

Bank performance was measured by ROA, ROE, P/E, and EPS. Governance proxies included: transparency and disclosure, shareholder rights, board responsibility & accountability, and stakeholders rights. The regression analysis showed a significant positive relationship between good governance and financial performance using EPS and P/E. However, ROA and ROE showed no significant relationship with good governance.

Arouri *et al*. (2011) studied the effect of ownership structure and corporate governance on bank performance in the GCC region in 2008. The sample included of 27 banks from GCC countries for the year 2008 excluding Kuwait for lack of data. CG proxies were CEO duality and BOD size, and other variables included ownership structure which was divided to ownership concentration, foreign ownership, and institutional ownership.

CEO duality and BOD size had insignificant impact on bank performance. Results also showed a positive and significant relationship between foreign ownership and bank performance that was measured by ROA. However, concentrated ownership was negatively related to ROA.

Bino and Tomar (2012) studied the impact of ownership structure, board composition, and size on bank performance of Jordanian banks during 1997-2006. Using a sample of 14 banks listed in ASE, they divided

ownership structure into individuals, corporations and government ownership, bank performance was measured through ROA and ROE.

Their study showed that banks with more institutional ownership and affiliated board of director members have better performance and lower risk than other banks. The board composition has the highest positive significant impact on bank's performance. They also found that the size of board has no important impact on the bank's performance, and that bank's size has a positive coefficient with return on equity ratio.

Al-Mashregy (2012) studied the characteristics of board of directors and firm performance of 60 non financial listed firms in Abu-Dhabi and Dubai stock exchange in 2012. A multiple regression analysis was employed to test the relationship between corporate governance proxies: (board independence, CEO duality, and board size), and firm performance which was measured by ROA and controlled by firm size. A positive significant impact was detected for both board size and firm size on ROA, and negative significant relation between CEO duality and firm performance, as for BOD independence no significant impact was found on ROA.

Al-Musalli and Ismail (2012) examined the effects of corporate governance, bank specific characteristics, and banking industry characteristics on intellectual capital (IC) performance of GCC listed banks in 2008-2010. The sample of their study included 74 GCC listed banks; however Kuwaiti banks were excluded due to missing relevant information.

They included board size, number of independent directors, government ownership, family ownership, domestic strategic institutional ownership, and strategic institutional ownership as corporate governance tools which are the independent variables. Bank size and financial performance are the control variables which are measured by total assets and ROE respectively. As for measuring the (IC) performance they used value added intellectual coefficient (VAIC) method, and employed pooled ordinary least square regression to examine the relationship between the independent variables and (IC) performance.

The study resulted in a high significant negative relationship between board size, independency, family ownership and (IC) performance. However, there was not a significant relation between governmental ownership and (IC) performance, as for foreign institutional ownership it has an insignificant impact on (IC) performance. And an insignificant relationship existed between bank specific characteristics (bank internationality) and (IC) performance. The banking industry concentration has a positive effect on the level of IC performance.

Al-Mwalla and Bataineh (2013) investigated corporate governance relevance to dividends policy in industrial and financial companies listed in ASE for the period 2007-2009. A governance index was developed in order to measure governance level which included questions about BOD,

transparency, audit committees, commitment to the central bank of Jordan (CBJ) instructions and bank's activities. Three analytical models were used to measure the relevance of dependant variable (dividends yield) and independent variables (governance level), the models were: Ordinary Least Squares (OLS), Random effect model, and TOBIT methods. They found that dividends yield decrease in firms with strong governance structure due to lower information asymmetry and firm cash flow is retained.

Moscu (2013) investigated the relationship between CEO-chairman duality and firm performance of listed companies in Bucharest Stock Exchange in 2010. Using a sample of 62 listed companies was used to test the relationship, and firm performance was measured by ROA and ROE. The results of the regression model was the presence of an insignificant but positive relation between performance and duality , and the relationship between duality and ownership concentration was also investigated using a regression model, which resulted that a concentrated structure affects the CEO duality adversely.

Daradkah and Ajlouni (2013) studied the effect of CG on bank's dividend yield of listed Jordanian banks in 2001-2009. Proxy for dividends was dividends payout ratio and for CG they used institutional ownership indicator, other independent variables were used such as: liquidity, growth rate, tax charges, measures of performance and profitability were: market

value to book value (MVBV) and ROA. The panel data regression they employed showed an insignificant relation of institutional ownership and dividend payout ratio (DPR), as well as between growth and liquidity with DPR. Also, they found a positive relation of tax with DPR, and a significant but weak relation between bank performance measured by MVBV and DPR. Their paper showed weak evidence on employing one CG measure on DPR.

Zedan and Nassar (2014) investigated the effect of CG on operating performance of manufacturing companies listed in ASE during 2005-2009. Operating performance being the dependant variable was tested using ROA, ROE, asset turnover and inventory turnover. CG the independent variable was measured through CEO duality, independent directors, owners of more than 5% of company's stock, BOD size and foreign ownership. Their study finds that largest owners percentage, state ownership and foreigners have a significant effect on ROA, ROE and total asset turnover. However, CEO duality and BOD size are not significant to firms' performance.

Shafique *et al*. (2014) studied the impact of board's gender diversity on banks performance of 6 listed banks in Pakistan during 2008-2012. The dependant variable is ROA to measure banks performance and included three independent variables to specify the gender diversity. Those variables

were the number of women on board, percentage of woman to board size, and female CEO presence. SPSS was applied to analyze the data and they found that only number of women on board is significant and positively related to ROA. While, women on board percentage to board size and female CEO has insignificant and negative correlation to bank ROA. Limitations of their study were mainly the small sample size and measuring banks performance by using only ROA.

Hassan and Farouk (2014) examined the effect of BOD characteristics on Nigerian bank performance for the period of (2007-2011). They used multiple regression technique for the study analysis and collected the data from annual reports of banks. Variables in this study were: BOD characteristics which included Insider Directors, Board Size, and Board Composition, while the dependant variable banks performance was measured through ROA.

The results indicated that any increase in the number of insider directors does not affect the performance of banks, while the board size has a negative significant affect on performance. However, board composition has a positive significant influence on the performance of listed deposit money banks in Nigeria. Recommendations of their study were to increase the number of outside directors on the board, and decreasing the number of board members.

Al-Amarneh (2014) investigated the ownership structure and CG effects on performance of 13 listed banks in ASE for the period 2000-2012. Proxies for CG included CEO duality and board size, while bank performance was measured through ROA and operating efficiency ratio was employed to measure bank productivity. Bank size and bank risk variables were also employed in the research as control variables, and ownership structure was included as independent variables. Panel data regression results showed a positive insignificant relation between CEO duality and profitability, ownership concentration had a positive and significant relation with bank performance. However, institutional and foreign ownership showed a positive but insignificant impact to bank performance. Further investigations concluded that larger board size increases bank profitability, but larger banks were found to be less productive in terms of profitability and efficiency.

Given the previous discussion of related research, it can be noticed that a diversity of issues have been tickled with special emphasis of the importance of BOD composition and its relationship to bank performance, which could provide an insight on the relationship between BOD composition and bank performance.

The results of previous research are varied which is caused by the type of variables used to measure CG and profitability measurement employed, as

well as the country's regulation and strict level of policies forced on corporations. On the other hand the researcher is aware that the implementation of CG and its enforcement in general has been applied recently in other sectors relative to the banking sector. However, in the year 2008 awareness and implementation of CG became part of legislative environment.

This research is distinguished from previous literature by including new variables for BODs' composition in Jordanian banks; such as gender diversity and BOD members' ownership structure, which is divided into four types: Foreign, Jordanian, Institutional and Individuals ownership. CG is something dynamic and a continuous process, the period of this study provides a highlight on developments of CG compliance after the year of 2007 when the CBJ issued CG guidelines.

Chapter Four

Methodology

Chapter Four

Methodology

This chapter includes the following sections:

4-1 Introduction.

4-2 Methodology Flow Chart.

4-3 Population and Sample.

4-4 Data Collection Method.

4-5 The Model.

Chapter Four

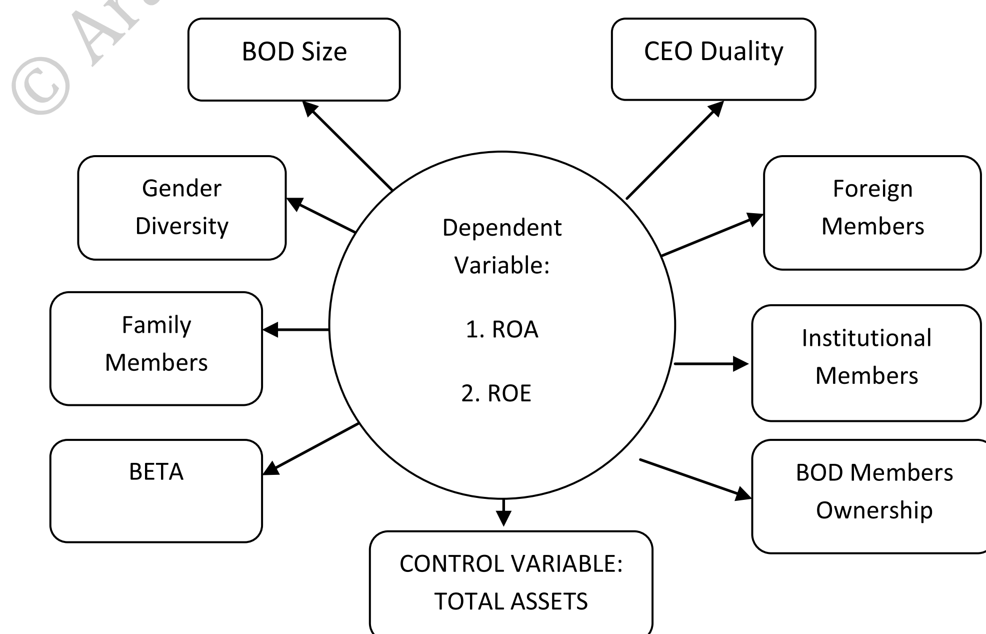
Methodology

4-1 Introduction:

This chapter explains the methodology followed in the research to investigate the impact of boards' structure on Jordanian banks' performance for the period (2005-2013).

BOD structure is the independent variable and it is examined by studying its size, CEO duality presence, gender diversity, and ownership proportions of members. The dependant variable is bank performance and it is measured through return on assets (ROA), and return on equity (ROE). BOD structure and bank performance are regressed using Stata program for statistical analysis. The following chart illustrates the study variables.

4-2 Methodology Flow Chart:



Source: Developed by the researcher

4-3 Population and Sample:

The population of this study is the Jordanian banking sector for the period 2005-2013. According to the directory of banks in the central bank of Jordan, the Jordanian banking sector includes 25 banks classified as: (13) Commercial banks, (3) Islamic banks, (8) Foreign banks and (1) Foreign Islamic bank. However, the sample of the study is the commercial banks in Jordan for the period 2005-2013. Islamic and foreign banks are excluded from the sample for consistency. Table (1) presents the sample of Banks under investigation.

Table (1) Selected Banks and their Equity, Market Capitalization, Year of Establishment, and Number of Branches (numbers are in millions as of 31/12/2013):

Bank	Equity	Market Capitalization	Year of Establishment	No. of Branches
Arab Bank	534	4,181.22	1948	76
The Housing Bank For Trade and Finance	252	2,192.4	1973	123
Bank of Jordan	155.1	387.75	1960	77
Arab Jordan Investment Bank	100	198	1978	10
Cairo Amman Bank	100	278	1960	85
Jordan Kuwait Bank	100	389	1976	56
Investbank	100	120	1982	11
Jordan Commercial Bank	100	104	1977	30
Bank Al-Etihad	110	181.5	1978	38
Jordan Ahli Bank	165	201.3	1955	52
Capital Bank Of Jordan	165	264,	1995	12
Arab Banking Corporation	100	110,	1990	27
Societe General Bank of Jordan	100	89,	1999	16

Source: Developed by the researcher.

4-4 Data Collection Method:

Board of directors' structure and financial ratios (ROA & ROE) used in the study are collected from banks' annual reports for the selected sample and period. Related articles, journals and banks disclosures on (ASE) website are also used.

4-5 The Model:

This study investigates the impact of board of directors' structure on bank performance. BOD size and CEO duality are employed as CG proxies, other board of directors variables used in the study are: gender diversity, family members, nationality of members (Jordanian or Foreign), stock beta is used to measure risk, and members' ownership structure (Foreign, Jordanian, Individuals or Institutional). Also, Bank size is used in the study as a control variable which is included as the logarithm of total assets.

Bank performance is measured by using ROA, ROE. The relationship between the independent variables and bank performance is tested by applying panel data regression analysis.

The models of the study are:

(1) $ROAit = ß0+ß1\, Log\, (BS)\, it+ß2\, CDit+ß3\, FMit+ß4\, GDit+ß5JoMit+ß6\, FoMit+ß7\, FIndOit+ß8FInsOit+ß9JIndOit+ß10JInsOit+ß11Beta+ß12Log(TA)it+\varepsilon it$. …………..(1)

(2) $ROEit = ß0+ß1Log\, (BS)\, it+ß2\, CDit+ß3\, FMit+ß4\, GDit+ß5JoMit+ß6\, FoMit+ß7\, FIndOit+ß8FInsOit+ß9JIndOit+ß10JInsOit+ß11Beta+ß12Log(TA)it+\varepsilon it$…………(2)

Where:

it: refers to bank i in time t.
Log (BS): Log of board size

CD: CEO duality

FM: Family members

GD: Gender diversity

JoM: Jordanian member

FoM: Foreign member

FIndO: Foreign individual board member ownership

FInsO: Foreign institutional board member ownership

JIndO: Jordanian individual board member ownership

JInsO: Jordanian Institutional board member ownership

B: Beta.

Log (TA): Log of total assets (bank size)

ε: Error term

These models are built by following Sakawa and Watanabel (2011) by including BOD size, and boards' ownership, the remaining contents of the model is developed by the researcher.

Dependant variable of the study is bank performance. As explained earlier in the study, bank performance is the mechanism used to evaluate how well a bank is doing. In this study, bank performance is measured through (ROA, ROE) calculations of financial ratios are as follows:

1. Return on Assets (ROA): This ratio serves as a clue about the return on investment earned by the firm Besley and Brigham (2000 P.104). ROA is obtained by dividing net income to total assets: ROA=NI/TA

   Where:

ROA: represents return on assets for banks.
NI: represents net income for banks.

TA: represents total assets for banks.

2. Return on Equity (ROE): This ratio measures the rate of return earned on common stockholders' investment Besley and Brigham (2000 P.105).

   ROE: is calculated by dividing net income to common equity: ROE=NI/TE

   Where:
   ROE: represents return on equity for banks.
   NI: represents net income for banks.
   TE: represents common equity for banks.

Independent variables of the study are selected to investigate the structure of board of directors, BOD size and CEO duality are proxies for corporate governance, independent variables are explained next:

1. BOD size: this is derived by counting the number of board members in each bank for the study period. In the analysis this will be included as the logarithm of board size following Sakawa and Watanabel (2011).
2. CEO duality: this indicates whether the chairman of the board is also the general manager of the bank. Separation between the two roles in an important part of CG. This variable is used by employing a dummy variable of values (0 and 1) to indicate the presence of CEO duality value 1 is given and value 0 where the two roles are separated.

3. Gender diversity: this indicates if female members are present on board or not by giving their presence a value of 1 and 0 for their absence.
4. Family members: this is calculated by dividing the total number of family members on board over the total number of board members.
5. Nationality of members: this is calculated by dividing the total number of (1) Jordanian board members and (2) non-Jordanian board members over the total number of board members.
6. Beta: stocks beta is calculated for all banks in the sample during the research period in order to measure market risk.

   Members' ownership structure is studied using variables to reflect the ownership diversity as indicated by Sakawa and Watanabel (2011). Examining Jordanian banks' BOD we have: foreign, Jordanian, institutional or individual board members as detailed in the next points:

7. Foreign Individuals member's ownership: this proportion of board ownership is calculated by dividing total foreign individual members ownership over total shares of each bank during the study period.
8. Foreign Institutional member's ownership: this proportion of board ownership is calculated by dividing total foreign institutional members ownership over total shares of each bank during the study period.

9. Jordanian Individual member’s ownership: this proportion of board ownership is calculated by dividing total Jordanian individuals’ ownership over total shares of each bank during the study period.
10. Jordanian Institutional member’s ownership: this proportion of board ownership is calculated by dividing total Jordanian institutional members’ ownership over total shares of each bank during the study period.

Control variable used in this study is total assets in order to control bank size which may affect bank performance. Arouri *et al*. (2011) represented total assets as a control variable by the logarithm of total assets for each firm.

Bank size= log (TA)

Data analysis and results of the model are detailed in the next chapter.

Chapter Five

Data Analysis and Results

Chapter Five

Data Analysis and Results

This chapter includes the following sections:

5-1 Data Analysis

5-1-1 Descriptive Statistics

5-1-2 Correlation Matrix

5-2 Estimation Results

5-3 Hypothesis Testing

5-1 Data Analysis:

In order to test the impact of board of directors' structure on bank performance, the data selected includes Jordanian commercial banks listed in Amman Stock Exchange during the period of 2005-2013.

5-1-1 Descriptive Statistics:

Table (2) exhibits the descriptive statistics of the research variables: BOD ownership, BOD structure as CG proxies, and financial data for sample.

Table (2) Descriptive Statistics of BOD Structure, Boards' Ownership Structure, Diversity, and Financial Data of Jordanian Banks 2005-2013:

Variable	Mean	Std. Dev.	Min	Max
ROA	0.015	0.007	-0.002	0.049
ROE	0.109	0.055	-0.014	0.398
BETA	.765	.411	0.031	1.895
CEO Duality	0.145	0.354	0	1
Family Member	0.128	0.130	0	0.375
Gender Diversity	0.299	0.064	0	1
Foreign Member	0.325	0.242	0	1
Jordanian Member	0.675	0.242	0	1
Jod. Individual Ownership	0.074	0.094	0	0.347
Jod. Institutional Ownership	0.126	0.095	0	0.384
Foreign Individual Ownership	0.004	0.015	0	0.117
Foreign Institutional Ownership	0.273	0.306	0	0.877
Log (BOD size)	2.362	0.173	1.946	2.708
Log(Bank size)	21.097	1.098	18.497	23.923

Source: Output developed by the researcher using STATA

The value 0 in the above table indicates that a certain variable in the sample does not exist. For example, there are banks which did not have any family member, or female member, or foreign member in boards. Bank of Jordan and Investbank have the lowest number of foreign members, the Housing Bank of Jordan have the highest number of institutional members on board.

5-1-2 Correlation Matrix:

The correlation matrix reported in Table (3) shows the correlation between all the study variables. All the correlations are below .7; therefore all the variables will be included in the analysis. The figures in bold represents a moderate correlation between the two variables in the matrix but they do not represent a threat to the research analysis. Foreign individual members' ownership has the weakest correlation of .001 with stock beta, and the highest correlation is between foreign members and foreign institutional members' ownership of .615.

Both models (ROA and ROE) have a negative correlation (move in the opposite direction) with family members, gender diversity, board size, ownership of Jordanian institution and bank size. They have a positive correlation with CEO duality, foreign members on board, beta, and foreign institutional members' ownership.

Table (3) Correlation Matrix:

	ROA	ROE	CD	FM	GD	FOM	JIndO	JInsO	FIndO	FInsO	BETA	bs	ta
ROA	1												
ROE	0.892	1											
CD	0.165	0.122	1										
FM	-0.205	-0.122	0.039	1									
GD	-0.066	-0.071	-0.004	-0.053	1								
FOM	0.128	0.057	-0.309	**-0.547**	-0.132	1							
JIndO	0.089	0.049	-0.008	**0.565**	-0.177	-0.443	1						
JInsO	-0.078	-0.022	0.129	-0.128	-0.159	-0.296	-0.290	1					
FIndO	0.121	-0.014	0.042	0.007	0.067	-0.198	0.185	-0.074	1				
FInsO	0.112	0.044	-0.287	-0.501	-0.172	**0.615**	-0.375	-0.415	-0.198	1			
BETA	0.229	0.257	0.297	0.137	0.288	-0.33	0.095	0.122	-0.001	-0.45	1		
bs	-0.094	-0.06	0.152	0.027	0.094	-0.060	0.038	-0.190	0.168	-0.151	0.066	1	
ta	-0.124	-0.102	0.189	-0.169	0.220	0.047	-0.289	0.437	-0.161	-0.198	0.308	0.285	1

Source: Output developed by the researcher using STATA

5-2 Estimation Results:

Both models ROA and ROE are tested using random effect model. The model selection is based on the Hausman test results which have a value of 0.6994 for the first model (ROA) and a value of 0.4495 for the second model (ROE).

Adjusted R square is 0.225 for model one and 0.112 for model two as summarized in Table (4) below.

The estimation results for the analysis of the model one is reported in Table (5) and the estimation results of model two is reported in Table (6) in the following pages.

Table (4) Results summary

Model/Value	Model One (ROA)	Model Two (ROE)
R-square	0.4363	0.242
Adjusted R-square	0.225	0.112
Hausman Test	0.6994	0.4495

Table (5) Model 1: Estimation Results of the Impact of Board Structure on Bank's Performance (ROA) of the Jordanian Banks during the Period (2005-2013).

ROA	Random Effect Model	
Constant	**0.079**	1
	2.34	2
	(0.019)**	3
BETA	**0.006**	
	3.18	
	(0.001)***	
CEOD	**0.004**	
	2.28	
	(0.023)**	
F.MEM	-.01	
	-1.24	
	2.17	
GD	-.001	
	-.55	
	.584	
FO. Mem	.013	
	1.57	
	.117	
Jor. Ind. Own	**.044**	
	3.82	
	(0.000)***	
Jor. Ins. Own	0.003	
	-.23	
	.82	
For. Ind. Own	.058	
	1.33	
	.183	
For. Ins. Own	- 0.006	
	-.79	
	.432	
Log (BOD size)	-.007	
	-1.07	
	.286	
Log (TA)	**-.003**	
	1.83	
	(.067)*	
R-sq	.4363	
F-statistic	71.71	
	0.0000	
Hausman test	Chi2 statistic = 8.15	
	Prob > Chi2 = 0.6994	
B-P test Hetroskedastcity	Chi2 statistic = 12.73	
	Prob > Chi2 = (0.0002)***	

Significant levels: (***) 1 %,(**) 5%, and (*) 10%. Where 1 represents the coefficient, 2 is z-statistics and 3 is significance.

The random effect model in Table (5) shows that the CEO Duality, Jordanian individuals' ownership and Beta have a positive and a statistically significant relationship with bank performance measured by ROA. Al-Amarneh (2014) study resulted that CEO duality has also a positive impact on ROA but it is not significant. While bank size has a negative significant relationship with ROA; which indicates that total assets adversely affect ROA and they also have a negative correlation. This is also consistent with the results of Zedan and Nassar (2014) that total assets have a significant impact on ROA.

However family members, gender diversity, BOD size, foreign institutional members' ownership have a negative but not significant effect on ROA, which means that they adversely affect performance. Al-Amarneh (2014) results also showed an insignificant impact of institutional foreign ownership on bank performance.

Foreign members and ownership of foreign individuals' members have a positive effect on ROA but it is not significant, and based on the positive correlation between ROA and (foreign members and foreign members' ownership) ROA moves in the same direction with them.

Table (6) Model 2: Estimation Results of the Impact of Board Structure on Bank's Performance (ROE) of the Jordanian Banks during the Period (2005-2013)

ROE	Random Effect Model	
Constant	**0.793**	1
	2.34	2
	(0.009)***	3
BETA	**0.038**	
	2.95	
	(0.003)***	
CEOD	**0.022**	
	1.67	
	(0.095)*	
F.MEM	-.007	
	-.12	
	.903	
GD	**-.027**	
	-1.96	
	(.05)**	
FO. Mem	.064	
	1.11	
	.267	
Jor. Ind. Own	**.389**	
	4.75	
	(0.000)***	
Jor. Ins. Own	-.405	
	-.42	
	.675	
For. Ind. Own	.206	
	.309	
	.504	
For. Ins. Own	**- 0.129**	
	.063	
	(.039)**	
Log (BOD size)	-.043	
	-.92	
	.36	
Log (TA)	**-.029**	
	-2.25	
	(.025)**	
R-sq	.242	
F-statistic	68.94	
	0.0000	
Hausman test	Chi2 statistic = 10.93	
	Prob > Chi2 = 0.4495	
B-P test Hetroskedastcity	Chi2 statistic = 52.01	
	Prob > Chi2 = (0.0000)***	

Significant levels: (***) 1 %,(**) 5%, and (*) 10%. Where 1 represents the coefficient, 2 is z-statistics and 3 is significance.

The random effect model of ROE in Table (6) shows that CEO Duality has a positive significant impact on bank performance measured by ROE. Zedan and Nassar (2014) also found that CEO duality has a positive significant effect on firm profitability. Jordanian individuals' board ownership and beta also have a positive significant relationship with ROE, and based on the previous correlations ROE moves in the same direction with those variables.

However gender diversity, foreign institutional board ownership, and bank size have negative significant effect on banks' performance measured by ROE. This means that those variables adversely affect ROE, and they are also negatively correlated with ROE. Gender diversity results are consistent with Hassan and Berinyuy (2011) results of an insignificant effect of gender diversity and ROE.

Jordanian institutional members' ownership, family members, and BOD size which are negatively correlated with ROE affect performance negatively but the effect is not significant. Bino and Tomar (2012) and Arouri *et al*. (2011) results are also consistent with results of this study that BOD size has no important impact on banks' profitability.

5-3 Hypothesis Testing:

- H1: There is no statistically significant relationship between board nationality and bank performance.

  Sub-hypotheses:

  H1-1: There is no statistically significant relationship between board nationality and ROA.

  H1-2: There is no statistically significant relationship between board nationality and ROE.

  Under both models the null hypothesis H1 is accepted; there is no significant relationship between board nationality and ROA or ROE.

- H2: There is no statistically significant relationship between BOD size and bank performance.

  Sub-hypotheses:

  H2-1: There is no statistically significant relationship between BOD size and ROA.

  H2-2: There is no statistically significant relationship between BOD size and ROE.

  Under both models the null hypothesis H2 is accepted; there is no significant relationship between BOD size and ROA or ROE.

- H3: There is no statistically significant relationship between CEO duality and bank performance.

Sub-hypotheses:

H3-1: There is no statistically significant relationship between CEO duality and ROA.

H3-2: There is no statistically significant relationship between CEO duality and ROE.

Under both models the null hypothesis H3 is rejected; there is a statistical significant and positive relationship between CEO duality and both ROA and ROE.

- H4: There is no statistically significant relationship between gender diversity and bank performance.

Sub-hypotheses:

H4-1: There is no statistically significant relationship between gender diversity and ROA.

The null hypothesis H4 is accepted under model one; there is no statistical significant relationship between gender diversity and ROA.

H4-2: There is no statistically significant relationship between gender diversity and ROE.

The null hypothesis H4 is rejected under model two; there is a statistical significant relationship between gender diversity and ROE.

- H5: There is no statistically significant relationship between family members and bank performance.

Sub-hypotheses:

H5-1: There is no statistically significant relationship between family members and ROA.

H5-2: There is no statistically significant relationship between family members and ROE.

Under both models the null hypothesis H5 is accepted; there is no statistical significant relationship between family members and both ROA and ROE.

- H6: There is no statistically significant relationship between board ownership and bank performance.

Sub-hypotheses:

H6-1: There is no statistically significant relationship between board ownership and ROA.

H6-2: There is no statistically significant relationship between board ownership and ROE.

Under both models the null hypothesis H6 is rejected; there is a statistical significant relationship between board ownership and both ROA and ROE.

- H7: There is no statistically significant relationship between stock beta and bank performance.

Sub-hypotheses:

H7-1: There is no statistically significant relationship between stock beta and ROA.

H7-2: There is no statistically significant relationship between stock beta and ROE.

Under both models the null hypothesis H7 is rejected; there is a statistical significant and positive relationship between stock beta and both ROA and ROE.

The hypotheses testing reported above reflect the relationships between the independent variables and the two models of bank performance (ROA and ROE). Regarding the control variable of the study; Total assets is a significant control variable under both models.

Conclusions of the results and their matching with previous literature are explained in the next chapter.

Chapter Six
Conclusions and Recommendations

Chapter Six

Conclusions and Recommendations

6-1 Conclusion:

Empirical results of this study show positive significant relationship between CEO duality and bank performance measured by ROA and ROE. This implies that when the CEO is also the chairman of the board, the bank will be more profitable under ROA and ROE measures. This could be due to the fact that Jordanian banks' CEO's have strong monitoring. However, independency must not be jeopardized and CG rules must be followed and separate the roles of CEO and chairman. In 2013 only one bank did not separate the two roles in the selected sample of the study.

Jordanian banks have an average of 11 members in their boards, which comply with the Central Bank of Jordan CG guidelines. However, board size tested in the research as a proxy for CG has a negative relationship with ROA and ROE but it is not significant. This result is inconsistent with both results from AL-Amarneh (2014) and Bino and Tomar (2012) studies which concluded that larger boards lead to better performance.

Ajlouni (2007) concluded that Jordanian market does not value ownership mix, however boards' ownership results in this study indicates that there is a positive significant relation between Jordanian individual members'

ownership and ROA and ROE. Foreign institutional ownership has a negative significant relation with ROE.

Members of the board that are also family members have an insignificant but negative impact on both ROA and ROE; hence family relations will affect independency. However, Dalton *et al*. (1998) stated: "it is difficult to argue that directors whose affiliation is a function of personal relationships (i.e., family member) will be effective—or certainly will be fully effective at meeting any of the three director roles" (P.7).

Female members of the board however are affecting ROE negatively. Moreover, the results from the analysis show that bank's size has a negative coefficient with bank's ROA and ROE.

References:

- Adams, R. Mehran, H. (2008). **Corporate performance, board structure, and their determinants in the banking industry**. Staff Report, Federal Reserve Bank of New York, (330).

- Ajlouni, M. 2007. **Corporate governance and performance: the case of Jordanian stock companies**. A Research Accepted for the World Association of Sustainable Development (WASD). UK.

- Al-Amarneh, A. 2014. Corporate Governance, Ownership Structure and Bank Performance in Jordan. 2014. **International Journal of Economics and Finance**. 6 (6).pp.192-202.

- Al-Mashregy, M. 2012. **Board of director's characteristics and firm financial performance in UAE**. Master Thesis, University Utara, Malaysia.

- Al-Musalli, M. Ismail, K. 2012. Corporate Governance, Bank Specific Characteristics, Banking Industry Characteristics, and Intellectual Capital (IC) Performance of Banks in Arab Gulf Cooperation Council (GCC) Countries. **Asian Academy of Management Journal of Accounting and Finance**, 8 (1).PP. 115-134.

- Al-Mwala, M. Bataineh, O. 2013. **Corporate Governance and Dividend Policy in Jordan**. CG conference Yarmouk University. 2013.

- Al-Rosan, B. 2009. **The Effect of Board Size and Composition on Bank Performance**. Master thesis, University of Amsterdam. Netherlands.

- Al-Shiab, M, Abu-Tapanjeh, A. 2005. Ownership structure and firm performance: the case of Jordan. **Journal of Business Administration**, 1 (2).PP 1-27.

- Arouri, H. Hossain, M. Muttakin, M. 2011. Ownership Structure, Corporate Governance and Bank Performance: Evidence from GCC Countries**. Corporate Ownership and Control Journal**, 8 (4). PP. 365-372.

- Baker, K. Anderson, R. 2010. **Corporate Governance: A Synthesis of Theory, Research, and Practice.** John Wiley and Sons. New Jersey.

- Baloot, O. 2011. **The Impact of Corporate Governance Practices on the Performance of Jordanian Public Corporations**. Master thesis, Yarmouk University, Jordan.

- Besley, S. Brigham, E. 2000. Essential of Managerial Finance. 12th edition.

- Ben Moussa, F. Chichti, J. 2011. Interactions between Free Cash Flow, Debt Policy andStructure of Governance: Three Stage Least Square Simultaneous Model Approach. **Journal of Management Research**, 3 (2). Macrothink Institute.

- Bin Gharib, M. 2012. **Corporate Governance and the Board Efficiency in U.A.E Banks**. Master Thesis, The British University of Dubai, UAE.

- Bino, A, Tomar, S. 2012. Corporate governance and bank performance: evidence from Jordanian banking industry. **Jordan Journal of Business Administration**, 8 (2). Pp. 353-372.

- Basel Committee on Banking Supervision.1999. **Enhancing Corporate Governance for Banking Organization**. Bank for International Settlements. September 1999.

- Basel Committee on Banking Supervision. 2006. **Enhancing Corporate Governance for Banking Organization**. Bank for International Settlements. February 2006.

- Basel Committee on Banking Supervision. 2014. **Corporate Governance Principles for Banks**. Bank for International Settlements. Consultative Document. October 2014.

- Blair, M. 1995. **Ownership and Control: Rethinking Corporate Governance for the Twenty-First Century**. M.E. Sharpe Inc.

- Cadbury, A. 2000. **Corporate Governance: An International Review**. The Corporate Governance Agenda. 8: pp7–15.

- Celik, S. Amico, A. 2005. **Survey on Corporate Governance Frameworks in the Middle East and North Africa**. OECD, 2005.

- Chen, C, Lin, J, Yi, B. 2008. CEO Duality and Firm Performance- An Endogenous Issue. **Corporate Ownership & Control Journal** 6 (1). PP 58-65.

- Clark, R. 2005. **Corporate Governance Changes in the Wake of the Sarbanes-Oxley Act: A Morality Tale for Policymakers Too**. Harvard Law School, Cambridge, Discussion Paper No.525.

- Dalton, D. Daily, D. Ellstrand, A. Jonathan, J. 1998. Meta-Analytic Reviews of Board Composition, Leadership Structure, And financial Performance. **Strategic Management Journal**. (19) PP 269-290.

- Daradkah, D. Ajlouni, M. 2013. **Corporate Governance and Dividend Policy: Evidence from the Jordanian Banking Sector**. CG conference Yarmouk University.

- Donaldson, L. Davis, J. 1991. Stewardship Theory or Agency Theory: CEO Government and Shareholder Returns. **Australian Journal of Management** 1. (16).The University of New South Wales.

- Edwards, M. Robyn, C. 2005. **Corporate Governance and Performance: An Exploration of the Connection in a Public Sector Context**. University of Canberra. Paper No.1. Australia.

- Fama, E. Jensen, M. 1983. Separation of Ownership and Control. **Journal of Law and Economics.** 26 (2).pp. 301-325.

- Goergen, M. 2012. **International Corporate Governance**. Cardiff Business School. Pearson. UK.

- Hassan, A., Berinyuy, L. 2011. **Corporate Governance in Banking Industry: Gender Diversity in Boardrooms a quantitative study of Swedish banks during the period 2001-2010**. Master thesis, UMEA University, Sweden.

- Hassan, S. Farouk, M. 2014. Board of Director's Characteristics and Performance of Listed Deposit Money Banks in Nigeria. **Journal of Finance and Bank Management** 2 (1). PP 89-105.

- Hassanein, M. Wahsh, R. 2012. **CEO Duality and Bank Performance: The Consistent Null**. Banks and Banks Systems 7 (1). PP. 14-23.

- Sakawa, H. Watanabel, N. 2011. **Corporate Board Structures and Performance in the Banking Industry: Evidence from Japan**. SSRN 1786200.

- Isik, I. Gunduz, L. Omran, M. 2005. **Impacts of Organizational Forms, Stock Performance and Foreign Ownership on Bank Effeciency in Jordan: A Panel Study Approach.** Economic Research Forum. 12th Annual Conference. Cairo, Egypt.

- Jensen, M. 1986. **The Free Cash Flow Theory of Takeover: A Financial Perspective on Merger and Acquisition and the Economy**. SSRN.

- Jensen, M. Meckling, W. 1976. Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. **Journal of Financial Economics**. 3.pp. 305-360.

- Jensen, M. Murphy, K. 2004. **Remuneration: Where we've been, how we got to here, What are the problems, and how to fix them**. Harvard business school. Monitor group, Cambridge, Massachusetts and ECGI. Finance working paper.

- Kharabsheh, B. 2007. **Relationship between Corporate Governance and Financial Performance of Jordanian Commercial Banks**. Master thesis, Yarmouk University, Jordan.

- Kohler, M. 2010.**Corporate Governance and Current Regulation in the German Banking Sector: An Overview and Assessment**. Center for European Economic Research, Discussion paper No. 10-002.

- McNulty, T. Frorackis, C. Ormrod, P. 2012. **Corporate Governance and Risk: A Study of Board Structure and Process.** University of Liverpool Management School. Research Report 129. London.

- Moscu, R. 2013. Does CEO Duality Really Affect Corporate Performance? **International Journal of Academic Research in Economics and Management Sciences**. 2 (1). PP 156-166.

- Organization for Economic Cooperation and Development. 1999. **OECD Principles of Corporate Governance**.

- Organization for Economic Cooperation and Development. 2004. **OECD Principles of Corporate Governance.**

- Pathan, S, Faff, R. 2013. Does Board Structure In Banks Really Affect Their Performance? **Journal of Banking and Finance** 37 (5). PP.1573-1589.

- Renee, A. Hamid, M. 2008. **Corporate Performance, Board' structure, and Their Determinants in the Banking Industry**. Staff Report, Federal Reserve Bank of New York, No. 330.

- Shadab, H. 2008. Innovation and corporate governance: the impact of Sarbanes-Oxley U. PA. **Journal of business and employment law** 10 (4). PP 955-1008.

- Shafique, Y. Idress, Y. Yousaf, H. 2014. Impact of Boards Gender Diversity on Firms Profitability: Evidence from Banking Sector of Pakistan. European **Journal of Business and Management**. 6 (7). PP 296-307.

- Shleifer, A. Vishny, R. 1997. A Survey of Corporate Governance. **The Journal of Finance**. 52 (2). PP 737-783.

- Thomas, R. Hill, J. 2012. **Research Handbook on Executive Pay**. EE Publishing.

- World Bank. 1992. **Governance the World's Bank Experience**. A World Bank Publication. 1992b.

- Yang, T. Zhao, S. 2012. **CEO Duality, Competition, and Firm Performance.** SSRN 2177403.

- Zedan, H. Nassar, M. 2014. **The Effect of Corporate Governance on Operating Performance of Jordanian Manufacturing Companies: Evidance from Amman Stock Exchange.** Dirasat, Administrative Sciences. 41 (2). pp 465-481.

Websites:

- www.ase.jo
  Monthly Statistical Bulletin 2005-2013.
- www.cbj.gov.jo
- www.msci.com
- www.oecd.org
  OECD Principles of Corporate Governance 2004.
- www.garp.org.

6-2 Recommendations:

Based on the results of the study, it is recommended that:

- The central bank of Jordan should pay more attention to the BOD structure; family relationships between board members will negatively impact the banks' profitability.
- BOD in Jordan are appointed rather than elected, and since independency is a very important element in corporate governance, BOD size should be increased.
- Female presence on the board should be encouraged.
- Ownership of the boards' members in the bank must always be disclosed, such ownership will force them to act in the best interest of the firm.

Further investigation could be made on the CEO and chairman compensation, and ownership concentration. Even though governance starts inside of corporations to act in the best interest of investors, the existence of specialized commercial courts will also empower the development and stability of corporations.

أثر تركيب مجلس الإدارة على أداء البنوك: حالة بنوك الأردن 2005-2013

إعداد: لينا محمود حمدان

إشراف أ.د. منى المولا

الملخص

تهدف هذه الدراسة إلى تحليل أثر تركيب مجلس الإدارة على اداء البنوك الأردنية المدرجة في سوق عمان المالي للفترة 2005-2013. مجلس الإدارة يمثل الجهة العليا في تطبيق و مراقبة قوانين حوكمة الشركات في البنوك و من هنا تأتي أهمية هذه الدراسة. تم توظيف طريقة التحليل الاحصائي (Panel Data Analysis) لفحص العلاقة بين المتغير التابع بإستخدام نسبتي صافي الدخل الى الموجودات (ROA) و صافي الدخل الى حقوق الملكية (ROE) كمقياس لربحية البنك و مجموعة المتغيرات المستقلة التي تتضمن عاملي إزدواجية الرئيس التنفيذي مع رئيس مجلس الإدارة و حجم مجلس الإدارة لفحص حوكمة الشركات, و ملكية أعضاء المجلس و جنسياتهم و عدد الإناث و عدد الأقرباء بين الاعضاء و (beta) لقياس خطورة السوق. أظهرت النتائج التجريبية للدراسة عدم وجود علاقة ذات دلالة إحصائية بين جنسية اعضاء المجلس و حجم المجلس و عدد الأقرباء و ربحية البنك. بينما أظهرت وجود علاقة ذات دلالة إحصائية بين إزدواجية الرئيس و عدد الإناث و ملكية أعضاء المجلس و خطورة السوق (beta) و ربحية البنك.

كلمات مفتاحية: حوكمة الشركات, مجلس الادارة, ازدواجية الرئيس التنفيذي, بنك,الاردن.